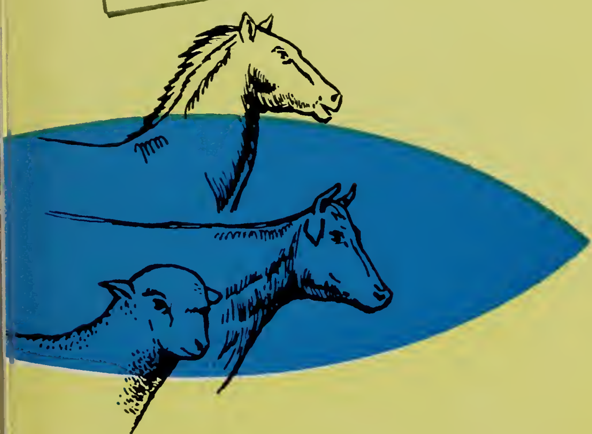
REDUCING LIVESTOCK LOSSES from *Lupine* POISONING in the Western States



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UNITED STATES DEPARTMENT OF AGRICULTURE

REDUCING LIVESTOCK LOSSES from *Lupine* POISONING in the Western States

Many species of lupines grow on grazing lands in the United States. Not all of them are poisonous to livestock. The following table lists the most poisonous species of lupines.

Common Name	*Botanical Name*	*Distribution*
Silky lupine	*Lupinus sericeus*	Montana, South Dakota, Wyoming, Idaho, Oregon, and Washington
Velvet lupine	*L. leucophyllus*	Oregon, Idaho, Utah, and Wyoming
Silvery lupine	*L. argenteus*	North Dakota, Wyoming, Colorado, New Mexico, Arizona, Utah, and Idaho
Tailcup lupine	*L. caudatus*	Oregon, Nevada, California, Idaho, Utah, and Wyoming
Perennial lupine	*L. perennis*	Maine to Minnesota south to Florida and Louisiana

Sheep are poisoned by feeding on lupines; other animals are seldom poisoned. Losses may be especially heavy when hungry animals are trailed through lupine ranges in the late summer. Sheep are occasionally poisoned by eating plants that have been cut and dried.

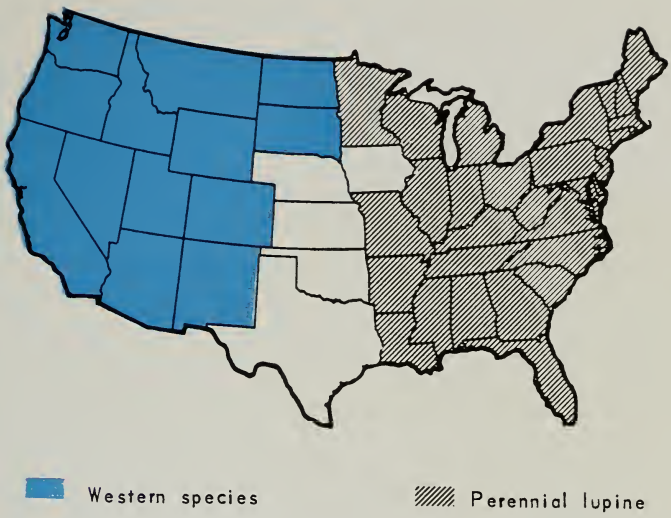
Poisonous lupines are dangerous from the time they start growth in the spring until they dry up in the fall. Most of them are especially dangerons in the late summer, when the pods form. The pods and seeds may retain their poisonous properties after the plants have matured.

The toxic substances in lupines are alkaloids.

Where and When It Grows

These plants grow on desert and mountain ranges, on sagebrush and aspen areas, and on foothills. The five species listed above are perennials (some lupines are annuals); they usually start growth fairly early in the spring, flower in June, and form seeds in July and August.

DISTRIBUTION OF LUPINE



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The color of lupine flowers varies with the species; although generally blue, the flowers may be white, pink, yellow, or a mixture of white and blue. The leaves are composed of several leaflets, which vary in number and radiate in fingerlike fashion from a common point. The plant belongs to the pea family.

How It Affects Livestock

The amount of lupine necessary to kill an animal varies with the plant species. An animal may eat comparatively large quantities of the plant without injury, if it does not eat a toxic dose at any one time.

The following are symptoms of lupine poisoning:

1. **Nervousness**
2. **Reluctance to follow the band**
3. **Difficulty in breathing**
4. **Frothing at the mouth**
5. **Convulsions**
6. **Coma**

How To Reduce Livestock Losses

Sheep will seldom eat a toxic dose of lupine if satisfactory forage is available. Losses can be reduced by keeping hungry animals away from lupine patches in the late summer, when the plant is highly toxic, and from dense plant stands at all times. Supplemental feeding is beneficial, especially when trailing animals through lupine ranges.

There is no effective treatment for lupine poisoning, and eradication of the plant is practicable only in small, isolated areas. Good results can be obtained by spraying the plants with a herbicide, such as 2,4–D or 2,4,5–T. To be effective, the treatment must be continued for 2 or 3 years, or until eradication is completed.

Where To Obtain More Information

You can obtain more information on lupine poisoning by getting in touch with your county agricultural agent or by writing to your State agricultural experiment station or to the U. S. Department of Agriculture. Consult your local veterinarian if you have any questions regarding affected animals. *Note:* The map on page 3 shows areas where most livestock poisoning has been reported. It is possible that lupine grows in areas other than those indicated.

Know Poisonous Plants • Reduce Livestock Losses

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